

Misc. heat  
producing device

**Compound  
scenarios**

# COMPOUND SCENARIOS

Use this section to answer the following questions:

- ... What is a compound scenario and where did the concept come from ?
- ... Is the compound scenario concept only used for tents 400 sq. ft. or less ?
- ... Why isn't the compound scenario concept necessary for a tent in excess of 400 sq. ft. ?

# COMPOUND SCENARIOS

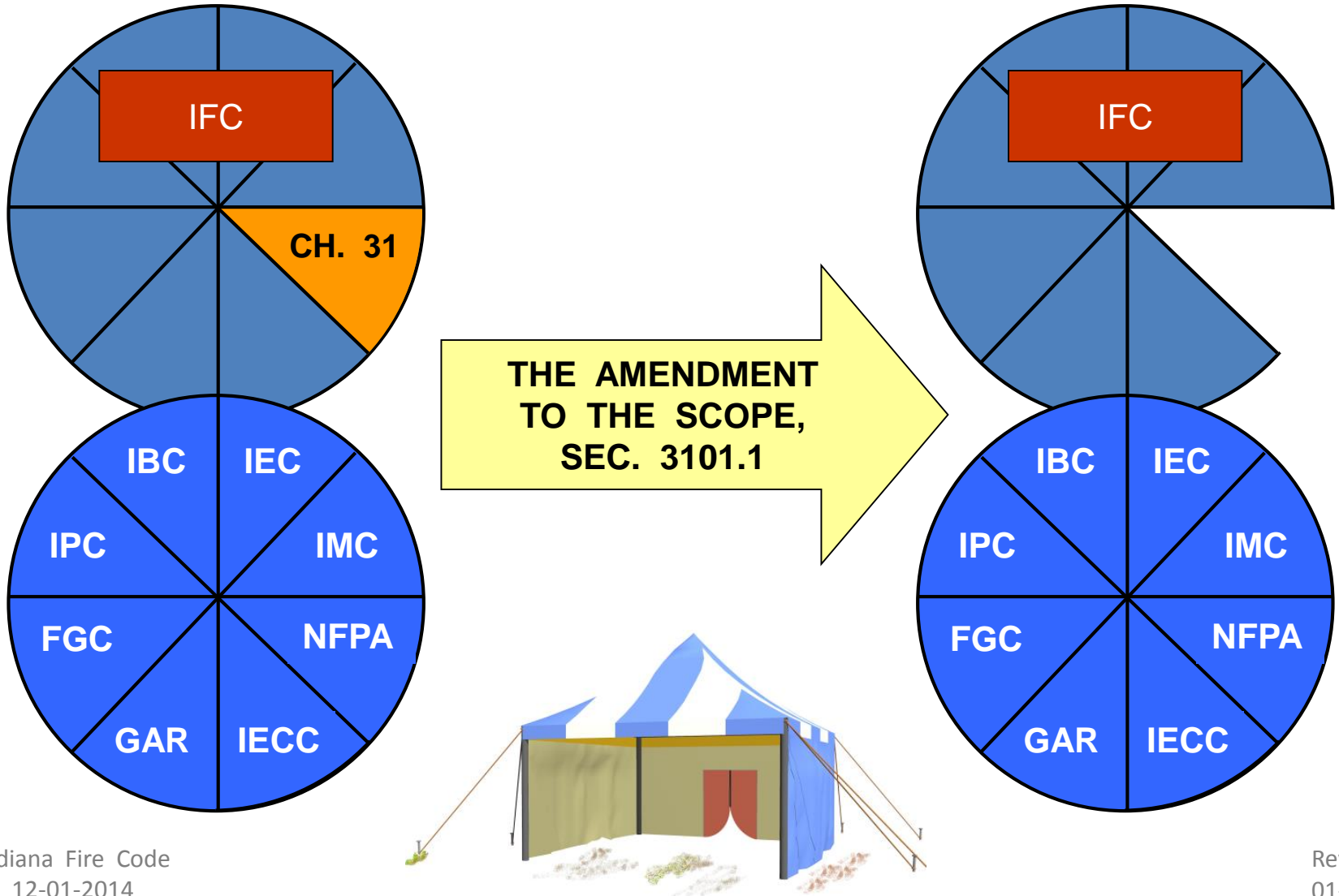
- **ONLY NEEDED FOR “SCOPE” TENTS**

**AN UNDERSTANDING OF THE CONCEPT OF COMPOUND SCENARIOS IS ONLY NEEDED WHEN DEALING WITH “SCOPE” TENTS. ( REMEMBER, A “REGULAR” TENT HAS TO MEET EVERYTHING IN CH. 31 AND ALSO ALL OF THE OTHER RULES OF THE FPBSC APPLICABLE TO THE SPECIFIC SCENARIO. )**

- **A COMPOUND SCENARIO IS WHEN THERE IS SOME ACTIVITY UNDER A “SCOPE” TENT WHICH IS REGULATED BY A RULE OF THE FPBSC OTHER THAN CH. 31, IFC, 2014 ED.**

# COMPOUND SCENARIOS

## ■ CODES, STANDARDS AND OTHER RULES APPLICABLE TO “SCOPE” TENTS



# COMPRESSED GAS CYLINDERS

## Compound Scenario

- 1<sup>st</sup>: DEAL WITH THE “SCOPE” TENT - IS THERE OPEN OR EXPOSED FLAME AND / OR COOKING?
- 2<sup>nd</sup>: ADDRESS THE ACTIVITY UNDER THE TENT - THERE ARE BALLOONS AND COMPRESSED GAS CYLINDERS.
- 3<sup>rd</sup>: DEAL WITH THE COMPRESSED GAS CYLINDERS - CH. 53, IFC, MAY BE USED.

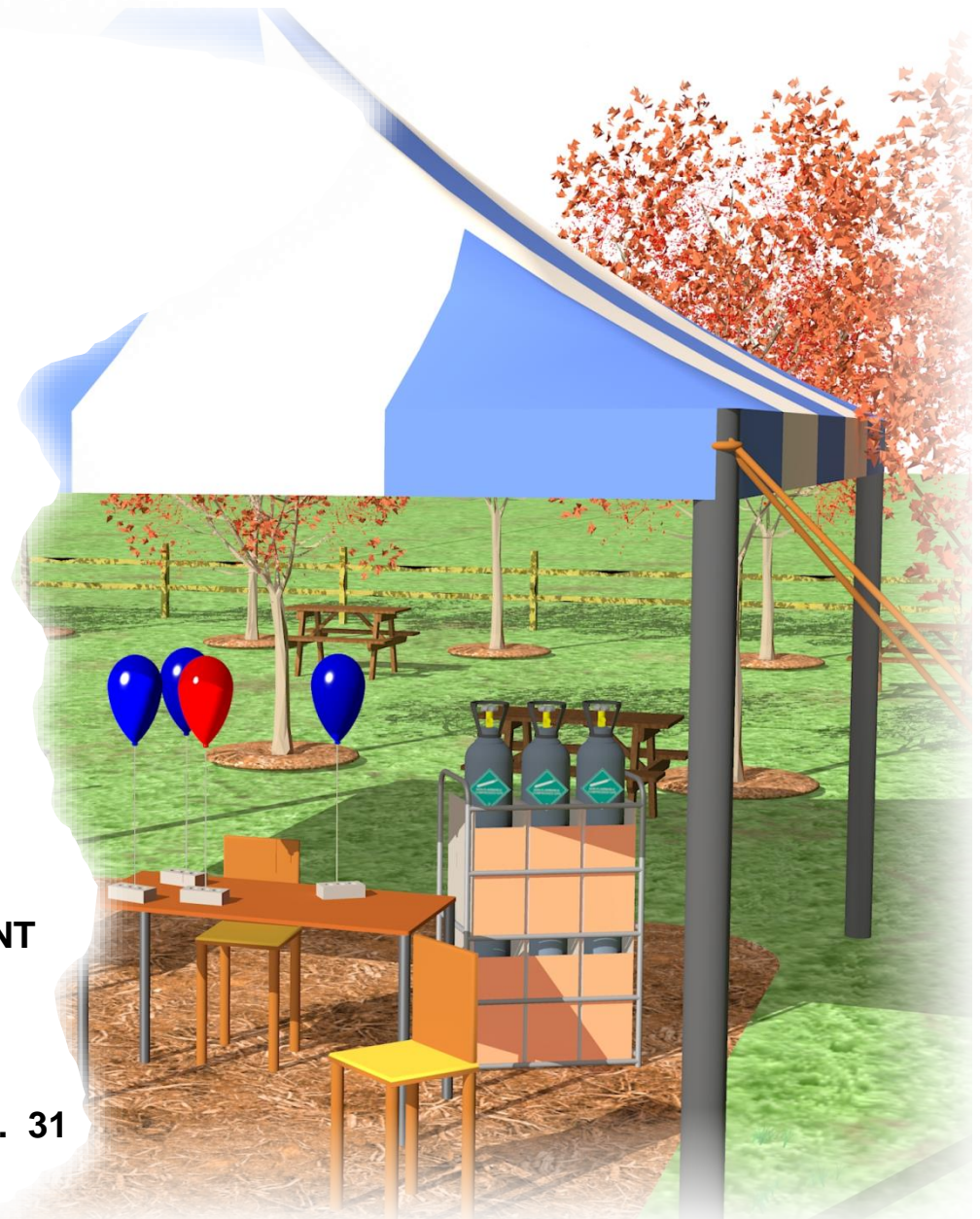


THIS TENT DOES NOT HAVE TO  
MEET ANY OF THE REQUIREMENTS IN CH. 31.

# COMPRESSED GAS CYLINDERS

## Compound Scenario

- THIS SCENARIO IS A “SCOPE” TENT; 400 SQ. FT. OR LESS
- WITH COMPRESSED GAS CYLINDERS INSIDE THE TENT
- DUE TO THE SIZE OF THIS TENT AND THE ACTIVITY INSIDE THE TENT
- THE *SCOPE* IS THE ONLY APPLICABLE CODE SECTION IN CH. 31

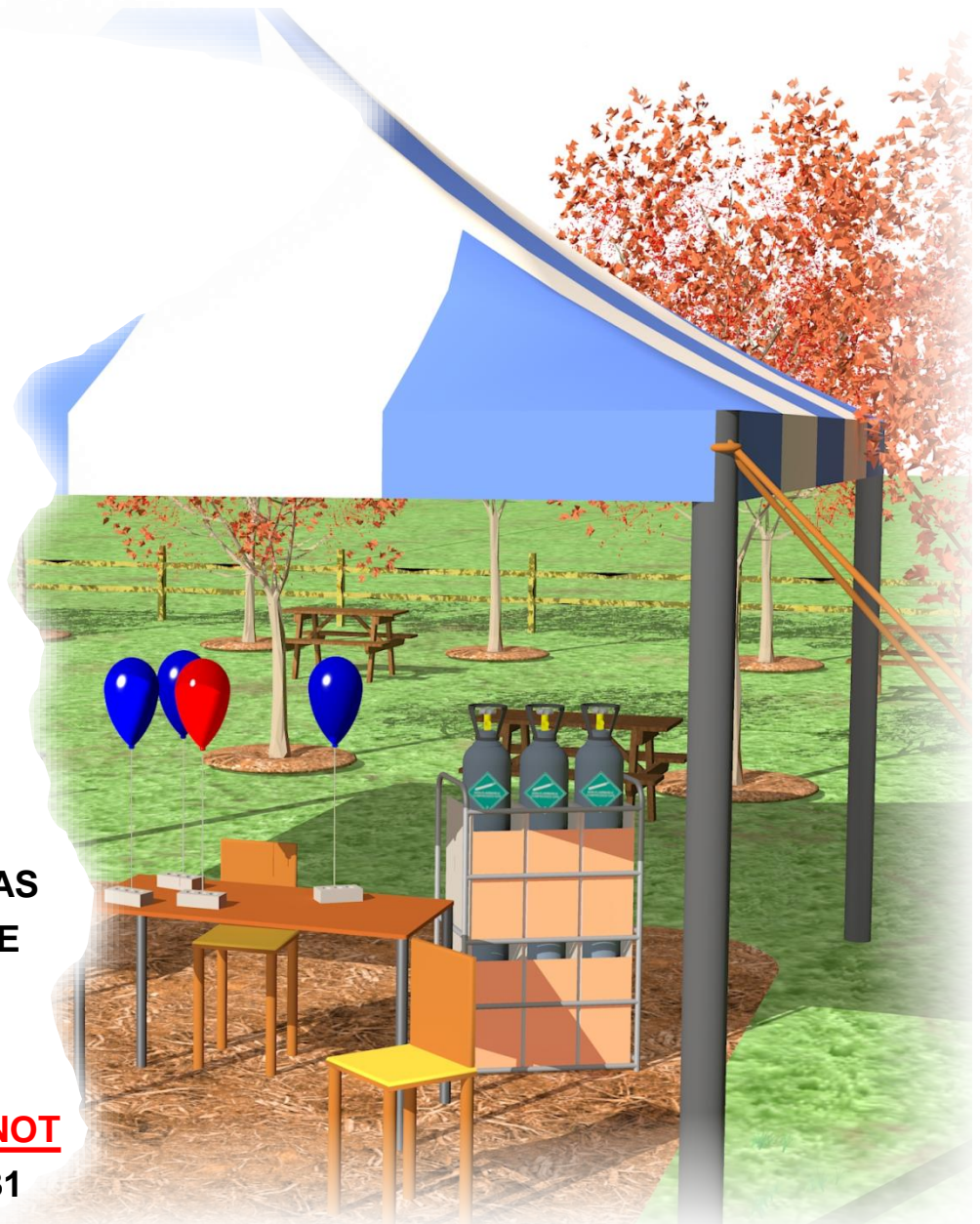




# COMPRESSED GAS CYLINDERS

## Compound Scenario

- THE 3 CODE SECTIONS AMENDED IN THE *SCOPE* ARE 3104.7, 3104.15.5 AND 3104.15.6
- THESE 3 CODE SECTIONS PERTAIN TO OPEN OR EXPOSED FLAME AND / OR COOKING
- THE ACTIVITY INSIDE THIS TENT HAS NOTHING TO DO WITH OPEN FLAME AND / OR COOKING, THEREFORE,
- DUE TO THE WAY THE *SCOPE* HAS BEEN WRITTEN, THIS TENT DOES **NOT** HAVE TO MEET ANYTHING IN CH. 31



# COMPRESSED GAS CYLINDERS

## Compound Scenario



■ 1<sup>st</sup>: DEAL WITH THE “SCOPE” TENT - IS THERE OPEN OR EXPOSED FLAME AND / OR COOKING?

■ 2<sup>nd</sup>: ADDRESS THE ACTIVITY UNDER THE TENT - THERE ARE BALLOONS AND COMPRESSED GAS CYLINDERS.

■ 3<sup>rd</sup>: DEAL WITH THE COMPRESSED GAS CYLINDERS - CH. 53, IFC, MAY BE USED.

This first step is important because one has to decide if there are any sections of Ch. 31 applicable. Once one determines there is no open or exposed flame and / or cooking then one knows that all of Ch. 31 is silent. In this scenario that is true. Go to step 2.

**THIS TENT DOES NOT HAVE TO MEET ANY OF THE REQUIREMENTS IN CH. 31.**

# COMPRESSED GAS CYLINDERS

## Compound Scenario



- 1<sup>st</sup>: DEAL WITH THE “SCOPE” TENT - IS THERE OPEN OR EXPOSED FLAME AND / OR COOKING?

- 2<sup>nd</sup>: ADDRESS THE ACTIVITY UNDER THE TENT - THERE ARE BALLOONS AND COMPRESSED GAS CYLINDERS.

- 3<sup>rd</sup>: DEAL WITH THE COMPRESSED GAS CYLINDERS - CH. 53, IFC, MAY BE USED.

For step 2, ask the following questions:  
Are there any rules of the FPBSC which address merchandise display? ( in this case balloons )  
Are compressed gas cylinders covered in any rule of the FPBSC?

**THIS TENT DOES NOT HAVE TO  
MEET ANY OF THE REQUIREMENTS IN CH. 31.**

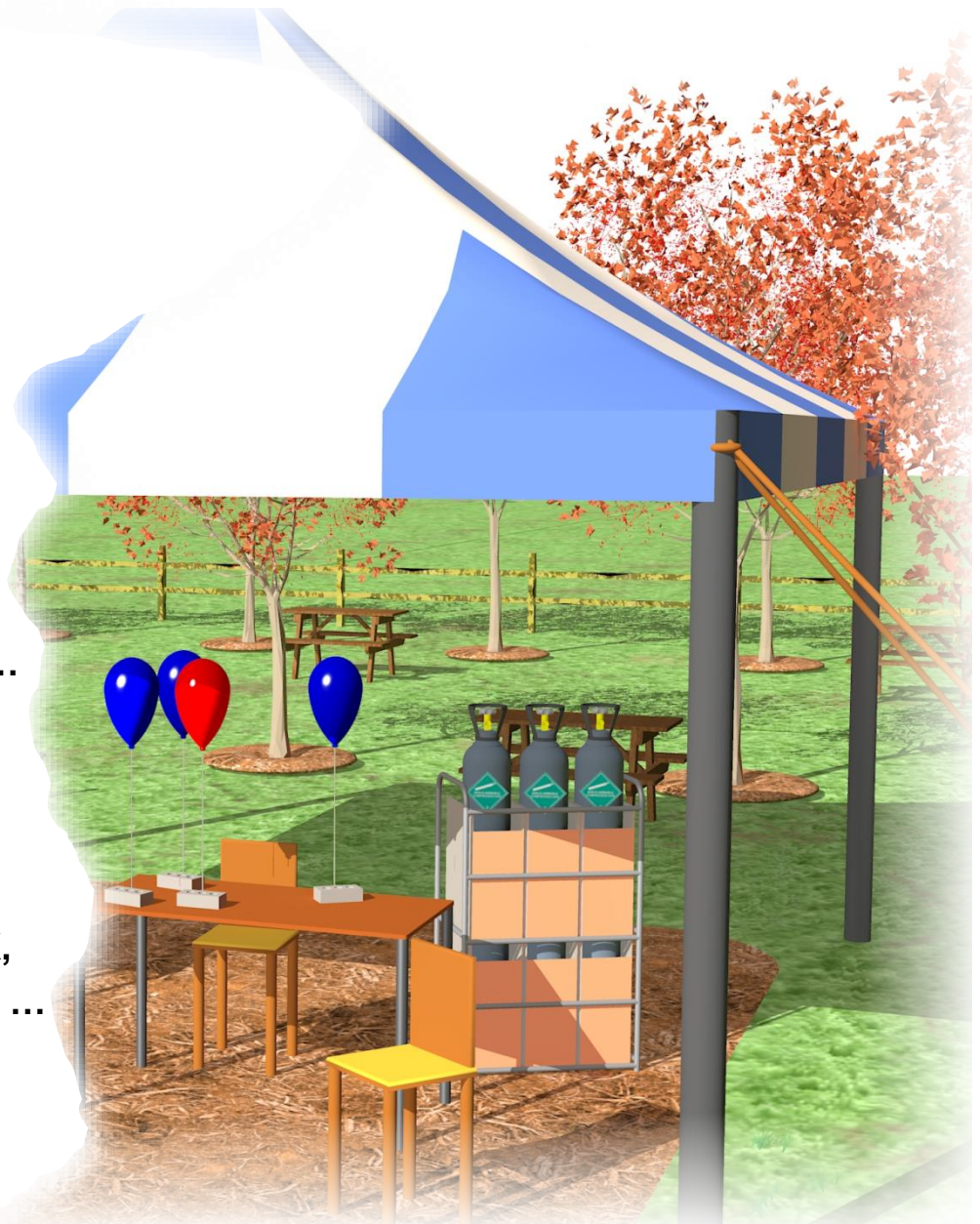


# SECURING COMPRESSED GAS CYLINDERS

## Compound Scenario

→ Go to Ch. 53

- COMPRESSED GAS CONTAINERS, CYLINDERS AND TANKS SHALL BE SECURED TO PREVENT FALLING CAUSED BY CONTACT, VIBRATION ...
- ONE OF FOUR ACCEPTABLE METHODS IS TO SECURE THE CYLINDERS TO OR WITHIN A RACK, FRAMEWORK, CABINET OR SIMILAR ...

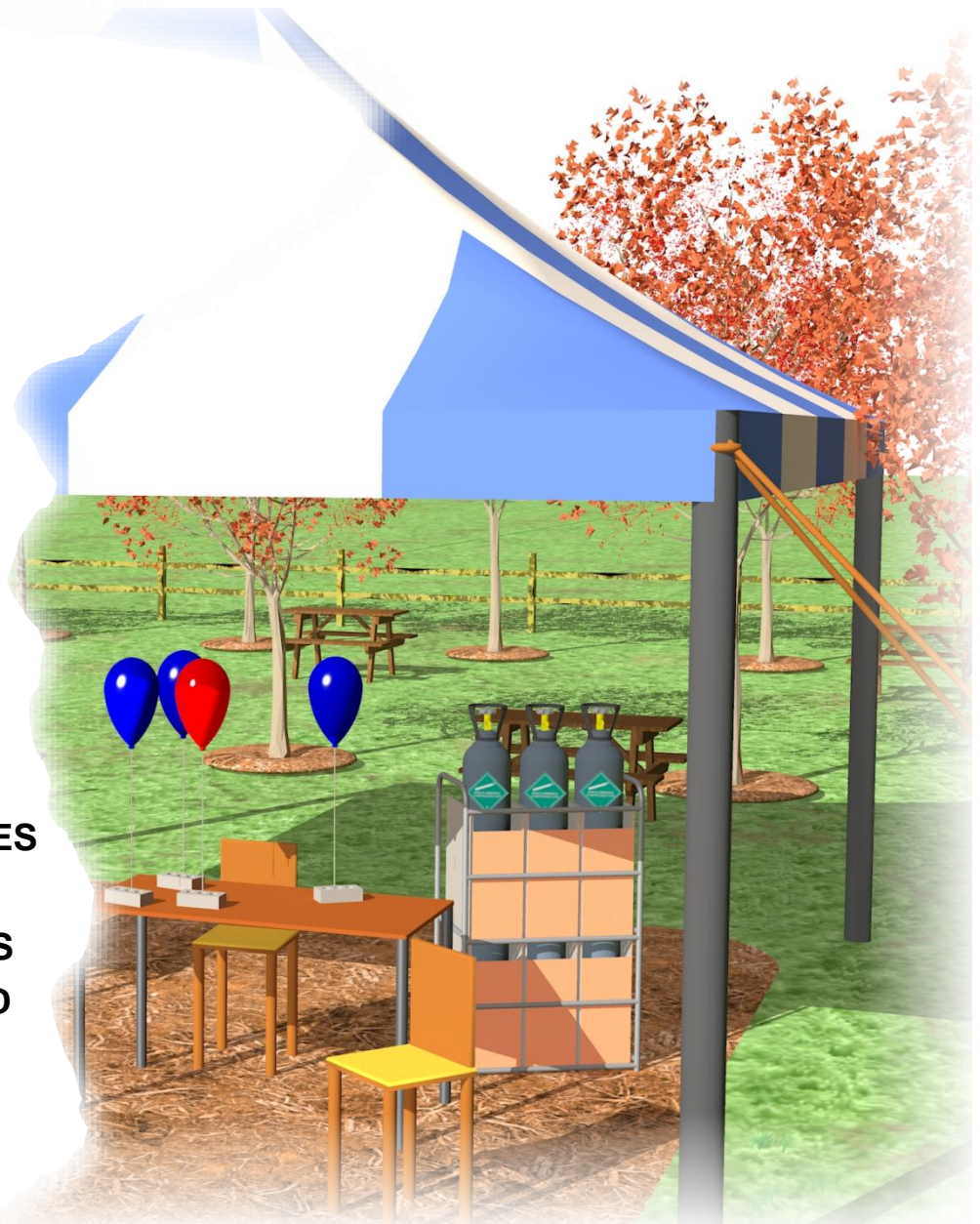


# PROTECTIVE CAPS OR COLLARS

## Compound Scenario

→ Go to Ch. 53

- COMPRESSED GAS CONTAINERS, CYLINDERS AND TANKS DESIGNED FOR PROTECTIVE CAPS, COLLARS OR OTHER PROTECTIVE DEVICES
- SHALL HAVE THE CAPS OR DEVICES IN PLACE EXCEPT WHEN THE CONTAINERS, CYLINDERS OR TANKS ARE IN USE OR ARE BEING FILLED



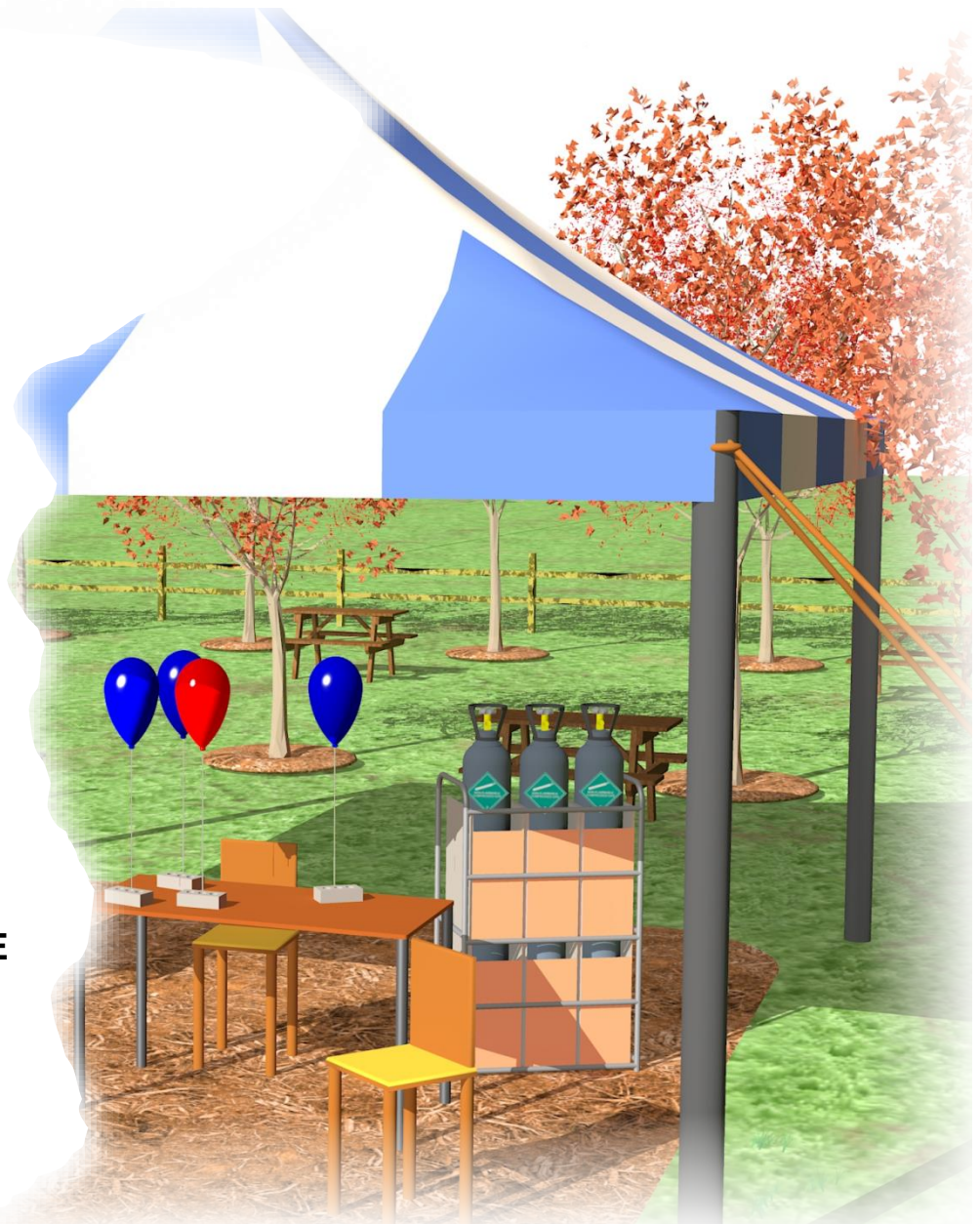


# UPRIGHT STORAGE OF COMPRESSED GASES

## Compound Scenario

→ Go to Ch. 53

- COMPRESSED GAS CONTAINERS, CYLINDERS AND TANKS, EXCEPT THOSE DESIGNED FOR USE IN A HORIZONTAL POSITION SHALL BE
- STORED IN AN UPRIGHT POSITION WITH THE VALVE END UP. AN UPRIGHT POSITION SHALL INCLUDE AN INCLINE OF 45 DEGREES



# COMPRESSED GAS CYLINDERS

## Compound Scenario



- 1<sup>st</sup>: DEAL WITH THE “SCOPE” TENT - IS THERE OPEN OR EXPOSED FLAME AND / OR COOKING?
- 2<sup>nd</sup>: ADDRESS THE ACTIVITY UNDER THE TENT - THERE ARE BALLOONS AND COMPRESSED GAS CYLINDERS.
- 3<sup>rd</sup>: DEAL WITH THE COMPRESSED GAS CYLINDERS - CH. 53, IFC, MAY BE USED.

**Step 3: Merchandise display / balloons –**  
there is nothing in any of the rules of the FPBSC addressing balloons.  
**Compressed gas cylinders –**  
Use Ch. 53 from the Indiana Fire Code.

**THIS TENT DOES NOT HAVE TO  
MEET ANY OF THE REQUIREMENTS IN CH. 31.**

# **SUMMARY:** the following code sections govern this scenario

## ■ **Sec. 3101.1 – Scope**

THIS IS THE ONLY CODE  
SECTION THAT APPLIES IN CH. 31.

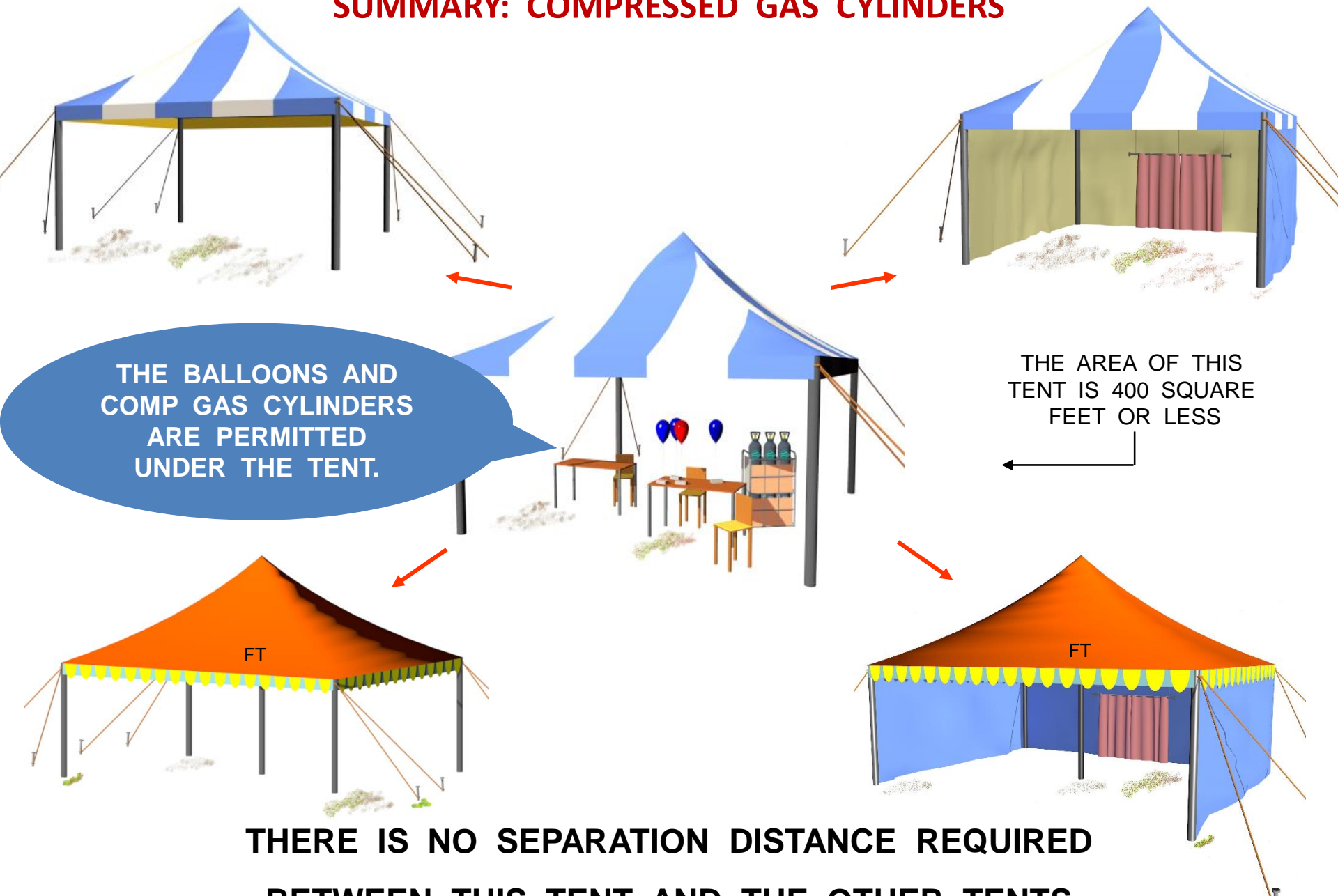
## ■ **Ch. 53 – Compressed gases**

└─→ Applicable to this scenario.



COMPRESSED GAS CYLINDERS  
UNDER A “SCOPE” TENT

# SUMMARY: COMPRESSED GAS CYLINDERS





# PORTABLE, ELECTRIC SPACE HEATERS

## Compound Scenario

- 1<sup>st</sup>: DEAL WITH THE “SCOPE” TENT - IS THERE OPEN OR EXPOSED FLAME AND / OR COOKING?
- 2<sup>nd</sup>: ADDRESS THE ACTIVITY UNDER THE TENT - MERCHANDISE DISPLAY AND AN ELECTRIC SPACE HEATER.
- 3<sup>rd</sup>: DEAL WITH THE PORTABLE ELECTRIC SPACE HEATER - CH. 6, IFC, MAY BE USED.

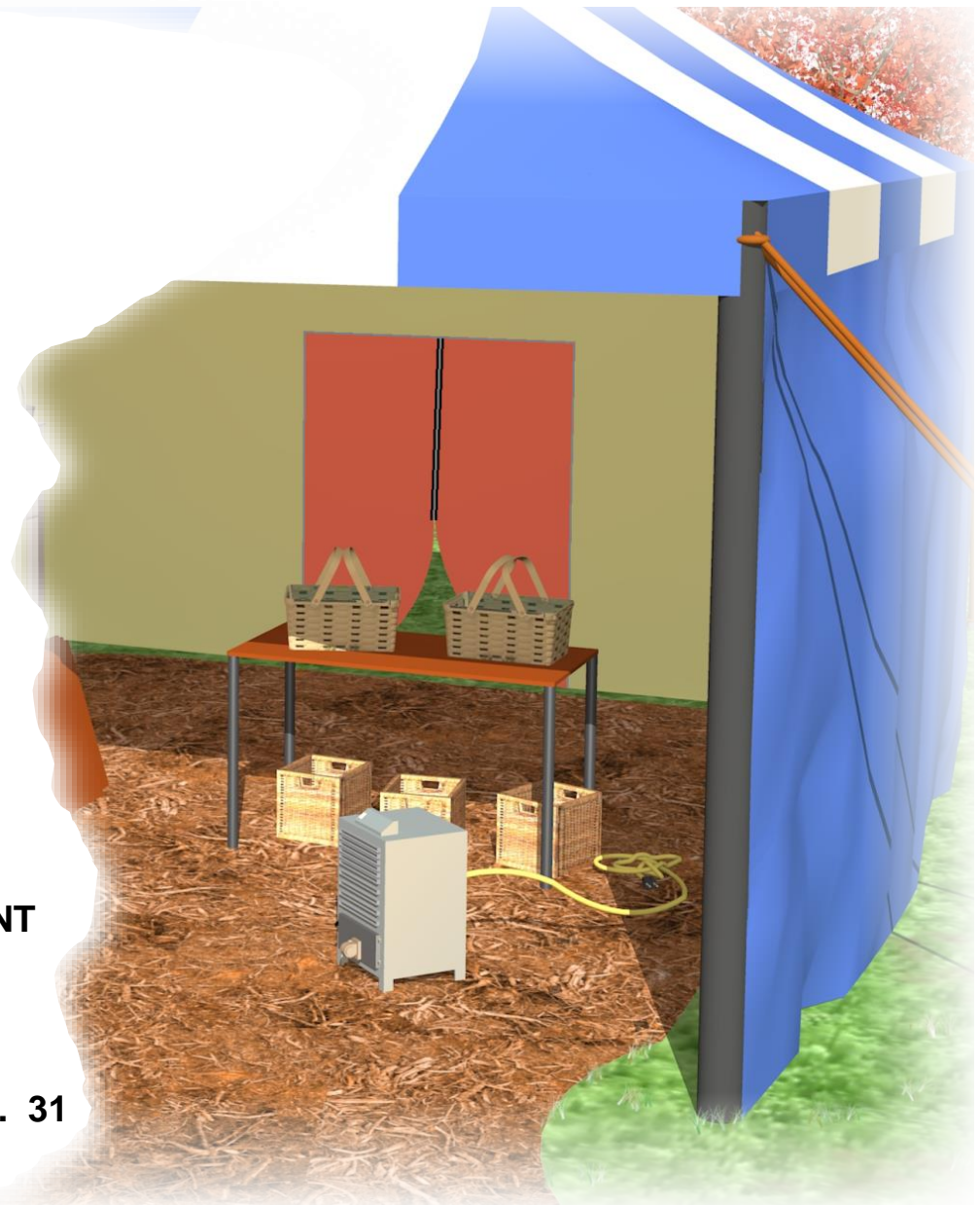


**THIS TENT DOES NOT HAVE TO  
MEET ANY OF THE REQUIREMENTS IN CH. 31.**

# PORTABLE, ELECTRIC SPACE HEATERS

## Compound Scenario

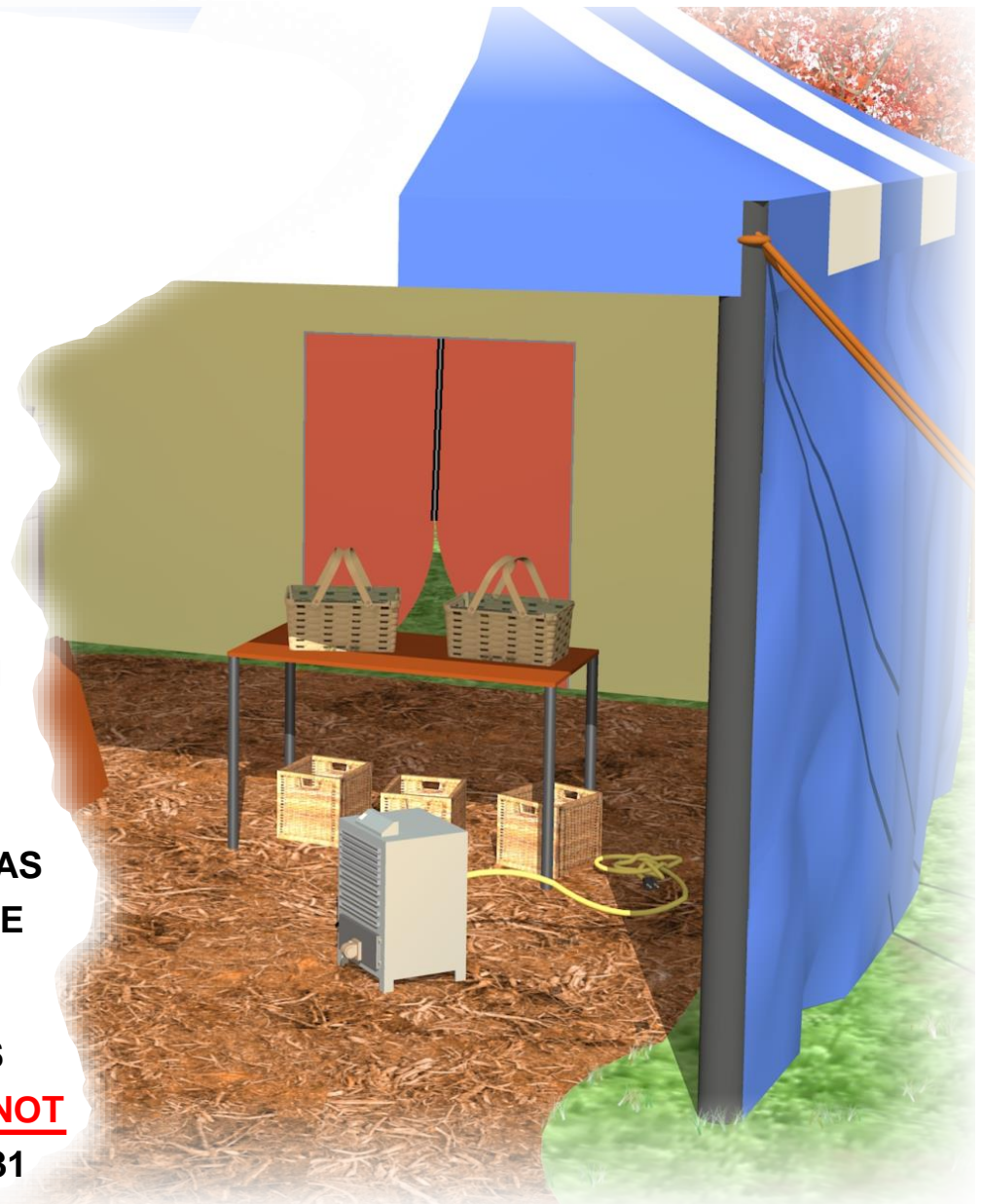
- THIS SCENARIO IS A “SCOPE” TENT; 400 SQ. FT. OR LESS
- WITH A PORTABLE, ELECTRIC SPACE HEATER INSIDE THE TENT
- DUE TO THE SIZE OF THIS TENT AND THE ACTIVITY INSIDE THE TENT
- THE *SCOPE* IS THE ONLY APPLICABLE CODE SECTION IN CH. 31



# PORTABLE, ELECTRIC SPACE HEATERS

## Compound Scenario

- THE 3 CODE SECTIONS AMENDED IN THE *SCOPE* ARE 3104.7, 3104.15.5 AND 3104.15.6
- THESE 3 CODE SECTIONS PERTAIN TO OPEN OR EXPOSED FLAME AND / OR COOKING
- THE ACTIVITY INSIDE THIS TENT HAS NOTHING TO DO WITH OPEN FLAME AND / OR COOKING, THEREFORE,
- DUE TO THE WAY THE *SCOPE* HAS BEEN WRITTEN, THIS TENT DOES **NOT** HAVE TO MEET ANYTHING IN CH. 31



# PORTABLE, ELECTRIC SPACE HEATERS

## Compound Scenario



- **1<sup>st</sup>: DEAL WITH THE “SCOPE” TENT - IS THERE OPEN OR EXPOSED FLAME AND / OR COOKING?**

- **2<sup>nd</sup>: ADDRESS THE ACTIVITY UNDER THE TENT - MERCHANDISE DISPLAY AND AN ELECTRIC SPACE HEATER.**

- **3<sup>rd</sup>: DEAL WITH THE PORTABLE ELECTRIC SPACE HEATER - CH. 6, IFC, MAY BE USED.**

This first step is important because one has to decide if there are any sections of Ch. 31 applicable. Once one determines there is no open or exposed flame and / or cooking then one knows that all of Ch. 31 is silent. In this scenario that is true. Go to step 2.

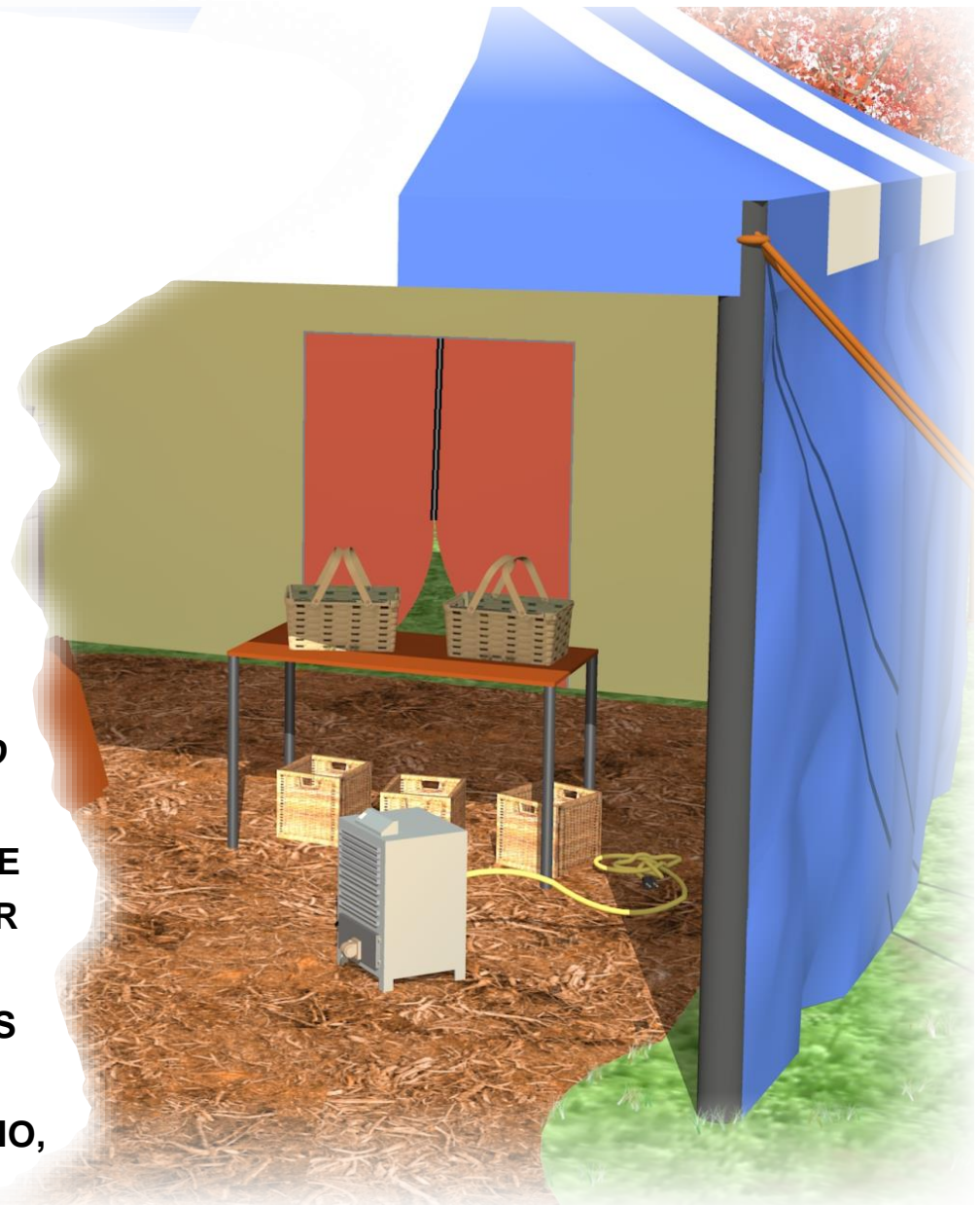
**THIS TENT DOES NOT HAVE TO MEET ANY OF THE REQUIREMENTS IN CH. 31.**



# PORTABLE, ELECTRIC SPACE HEATERS

## OSFM POLICY #2 – 3104.7

- IN ORDER TO UNDERSTAND WHY PORTABLE, ELECTRIC SPACE HEATERS ARE ALLOWED UNDER A “SCOPE” TENT ONE HAS TO REVIEW THE FIRST FEW WORDS OF SEC. 3104.7, *OPEN OR EXPOSED FLAME*. THE WORD HEAT IS REFERING TO THE HEAT FROM THE OPEN FLAME, NOT HEAT FROM, FOR EXAMPLE, AN ELECTRIC SKILLET OR A SPACE HEATER. THE HEAT IS ASSOCIATED WITH THE OPEN OR EXPOSED FLAME. IN THIS SCENARIO, SEC. 3104.7 IS NOT APPLICABLE.



# PORTABLE, ELECTRIC SPACE HEATERS

## Compound Scenario



- 1<sup>st</sup>: DEAL WITH THE “SCOPE” TENT - IS THERE OPEN OR EXPOSED FLAME AND / OR COOKING?

- 2<sup>nd</sup>: ADDRESS THE ACTIVITY UNDER THE TENT - MERCHANDISE DISPLAY AND AN ELECTRIC SPACE HEATER.

- 3<sup>rd</sup>: DEAL WITH THE PORTABLE ELECTRIC SPACE HEATER - CH. 6, IFC, MAY BE USED.

For step 2, ask the following questions:  
Are there any rules of the FPBSC which address merchandise display? ( in this case baskets )  
Are portable electric space heaters covered in any rule of the FPBSC?

**THIS TENT DOES NOT HAVE TO MEET ANY OF THE REQUIREMENTS IN CH. 31.**

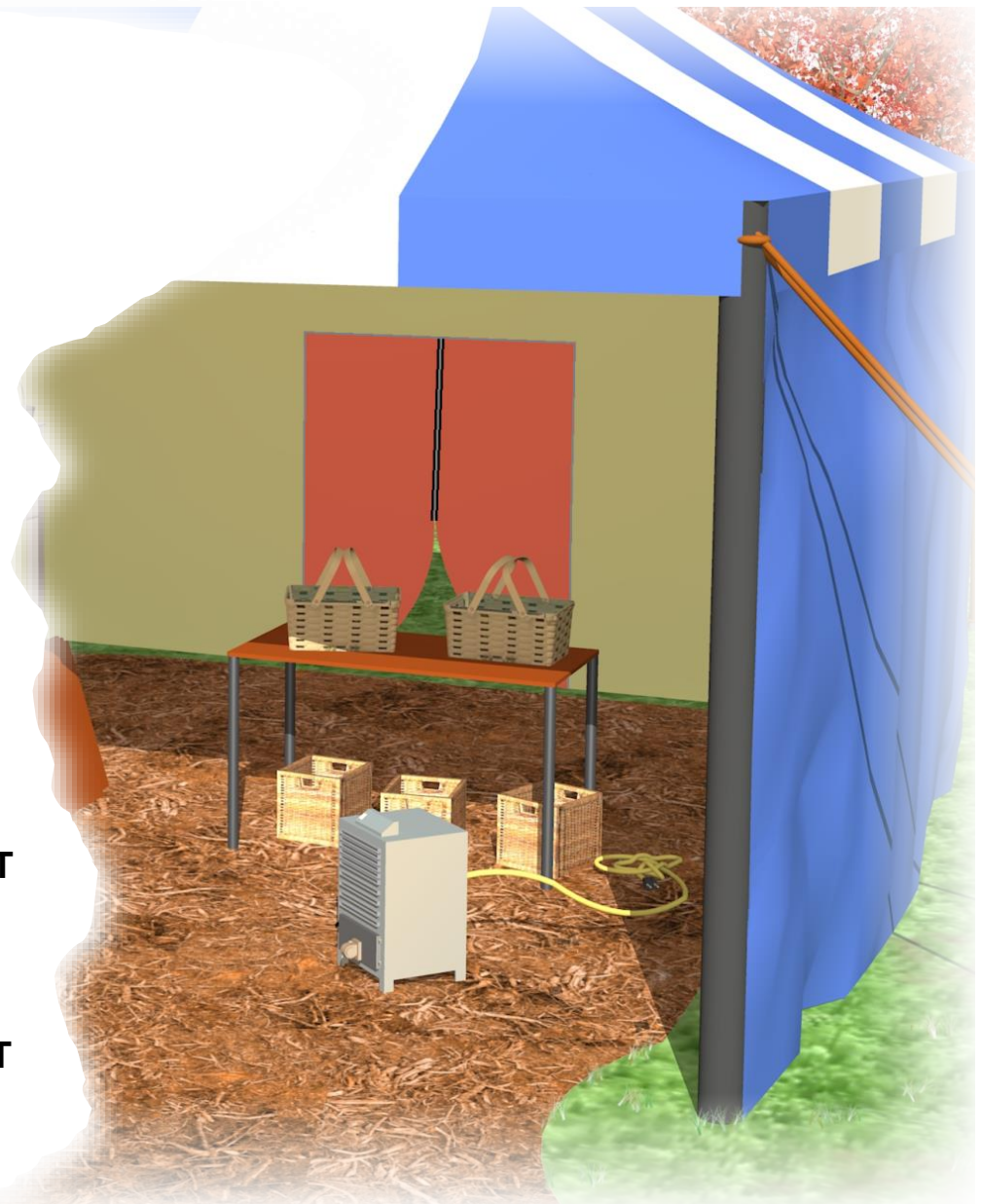


# PORTABLE, ELECTRIC SPACE HEATERS

## Compound Scenario

→ Go to Ch. 6

- ONLY LISTED AND LABELED PORTABLE, ... HEATERS SHALL BE USED
- PORTABLE, ... HEATERS SHALL BE PLUGGED DIRECTLY INTO AN APPROVED RECEPTACLE
- PORTABLE, ... HEATERS SHALL NOT BE PLUGGED INTO EXTENSION CORDS
- PORTABLE, ... HEATERS SHALL NOT BE OPERATED WITHIN 3 FEET OF ANY COMBUSTIBLE MATERIALS



# PORTABLE, ELECTRIC SPACE HEATERS

## Compound Scenario



- 1<sup>st</sup>: DEAL WITH THE “SCOPE” TENT - IS THERE OPEN OR EXPOSED FLAME AND / OR COOKING?
- 2<sup>nd</sup>: ADDRESS THE ACTIVITY UNDER THE TENT - MERCHANDISE DISPLAY AND AN ELECTRIC SPACE HEATER.
- 3<sup>rd</sup>: DEAL WITH THE PORTABLE ELECTRIC SPACE HEATER - CH. 6, IFC, MAY BE USED.

**Step 3: Merchandise display / baskets –**  
there is nothing in any of the rules of the FPBSC addressing baskets.  
**Portable electric space heaters –**  
Use Ch. 6 from the Indiana Fire Code, specifically Sec. 605.10.

**THIS TENT DOES NOT HAVE TO  
MEET ANY OF THE REQUIREMENTS IN CH. 31.**

# **SUMMARY:** the following code sections govern this scenario

## ■ **Sec. 3101.1 – Scope**

THIS IS THE ONLY CODE  
SECTION THAT APPLIES IN CH. 31.

## ■ **Sec. 605.10 – Portable, electric space heaters**

→ Applicable to this scenario.



A PORTABLE, ELECTRIC SPACE HEATER  
UNDER A "SCOPE" TENT

# SPACE HEATERS, GENERAL

## Kerosene, LP, LNG and Dual Fuel

- THERE ARE OTHER TYPES OF SPACE HEATERS BESIDES PORTABLE ELECTRIC; KEROSENE, LIQUEFIED PETROLEUM GAS ( LP ), LIQUEFIED NATURAL GAS ( LNG ) AND DUAL FUEL. DUE TO ALL OF THE VARIABLES INVOLVED WITH THIS EQUIPMENT, IT IS CUMBERSOME IN THESE SLIDES TO WADE THROUGH ALL OF THE POSSIBILITIES. THEREFORE, WHEN DETERMINING IF THESE DIFFERENT TYPES OF SPACE HEATERS ARE ALLOWED IN OR AROUND A TENT OR MEMBRANE STRUCTURE, CONSIDER THE FOLLOWING:

- 1) IS OPEN FLAME EMITTED FROM THE SPACE HEATER? IF THERE IS, GO TO SEC. 3104.7 AND APPLY THAT SECTION.
- 2) IS THE SPACE HEATER LISTED / LABELED FOR THE LOCATION WHERE IT IS BEING USED? IF A SPACE HEATER IS LISTED FOR “OUTDOOR USE”, IT IS INAPPROPRIATE TO USE THAT PARTICULAR SPACE HEATER INSIDE A TENT WITH ALL OF THE DROPS DOWN. MAKE SURE THE LISTING IS COMPATIBLE WITH THE LOCATION. ( Refer to the *Notes Page* for more on this. )

# FLAMMABLE – LIQUID – FUELED GENERATOR

## Compound Scenario

- THIS SCENARIO IS A “SCOPE” TENT; 400 SQ. FT. OR LESS
- WITH A GASOLINE - FUELED GENERATOR INSIDE THE TENT
- DUE TO THE SIZE OF THIS TENT AND THE ACTIVITY INSIDE THE TENT
- THE *SCOPE* IS THE ONLY APPLICABLE CODE SECTION IN CH. 31





# FLAMMABLE – LIQUID – FUELED GENERATOR

## Compound Scenario

- FOLLOW THE LOGIC SHOWN IN THE PREVIOUS SLIDES FOR THE MERCHANDISE DISPLAY ( BASKETS ) AND THE PORTABLE ELECTRIC SPACE HEATER. NOTHING CHANGES WITH RESPECT TO THOSE TWO SUBJECTS NOW THAT A GASOLINE – FUELED GENERATOR HAS BEEN PLACED INSIDE THE TENT.





# FLAMMABLE – LIQUID – FUELED GENERATOR

## Compound Scenario

- DUE TO THE *SCOPE*, THIS GAS – FUELED GENERATOR DOES NOT HAVE TO MEET SEC. 3104.17
- DUE TO THE *SCOPE*, THIS GAS – FUELED GENERATOR DOES NOT HAVE TO MEET SEC. 3104.19
- THIS SLIDE PERTAINS TO ALL GENERATORS AND OTHER INTERNAL COMBUSTION POWER SOURCES



# MEMBRANE STRUCTURES

## Compound Scenario

→ Go to Ch. 6

- SEC. 604.2.9, *MEMBRANE STRUCTURES*, WOULD NEVER BE APPLICABLE IN A “SCOPE” TENT BECAUSE EXIT SIGNS ARE NOT REQUIRED. DUE TO THE WAY THE *SCOPE* HAS BEEN WRITTEN, SEC. 3103.12.6 IS NOT ENFORCEABLE. THEREFORE, SEC. 3103.12.6.1, *EXIT SIGN ILLUMINATION*, WOULD NOT APPLY.



# **SUMMARY:** the following code sections govern this scenario

## ■ **Sec. 3101.1 – Scope**

THIS IS THE ONLY CODE SECTION THAT APPLIES IN CH. 31.

## ■ **Sec. 3104.17 – Flammable and combustible liquids**

Not applicable to this scenario.

## ■ **Sec. 3104.19 – Separation of generators**

Not applicable to this scenario.

## ■ **Sec. 604.2.9 – Membrane structures**

Not applicable to this scenario.



A GAS – FUELED GENERATOR  
UNDER A “SCOPE” TENT

# ELECTRICAL CODE VIOLATIONS

## Compound Scenario

- 1<sup>st</sup>: DEAL WITH THE “SCOPE” TENT - IS THERE OPEN OR EXPOSED FLAME AND / OR COOKING?
- 2<sup>nd</sup>: ADDRESS THE ACTIVITY UNDER THE TENT - MERCHANDISE DISPLAY AND AN ELECTRICAL CODE VIOLATION.
- 3<sup>rd</sup>: DEAL WITH THE ELECTRICAL CODE VIOLATION - THE INDIANA ELECTRICAL CODE MAY BE USED.



**THIS TENT DOES NOT HAVE TO  
MEET ANY OF THE REQUIREMENTS IN CH. 31.**



# ELECTRICAL CODE VIOLATIONS

## Compound Scenario

- THIS SCENARIO IS A “SCOPE” TENT; 400 SQ. FT. OR LESS
- WITH SOME SORT OF ELECTRICAL CODE VIOLATION INSIDE THE TENT
- DUE TO THE SIZE OF THIS TENT AND THE ACTIVITY INSIDE THE TENT
- THE *SCOPE* IS THE ONLY APPLICABLE CODE SECTION IN CH. 31



# ELECTRICAL CODE VIOLATIONS

## Compound Scenario

- THE 3 CODE SECTIONS AMENDED IN THE *SCOPE* ARE 3104.7, 3104.15.5 AND 3104.15.6
- THESE 3 CODE SECTIONS PERTAIN TO OPEN OR EXPOSED FLAME AND / OR COOKING
- THE ACTIVITY INSIDE THIS TENT HAS NOTHING TO DO WITH OPEN FLAME AND / OR COOKING, THEREFORE,
- DUE TO THE WAY THE *SCOPE* HAS BEEN WRITTEN, THIS TENT DOES NOT HAVE TO MEET ANYTHING IN CH. 31





# ELECTRICAL CODE VIOLATIONS

## Compound Scenario



- 1<sup>st</sup>: DEAL WITH THE “SCOPE” TENT - IS THERE OPEN OR EXPOSED FLAME AND / OR COOKING?
- 2<sup>nd</sup>: ADDRESS THE ACTIVITY UNDER THE TENT - MERCHANDISE DISPLAY AND AN ELECTRICAL CODE VIOLATION.
- 3<sup>rd</sup>: DEAL WITH THE ELECTRICAL CODE VIOLATION - THE INDIANA ELECTRICAL CODE MAY BE USED.

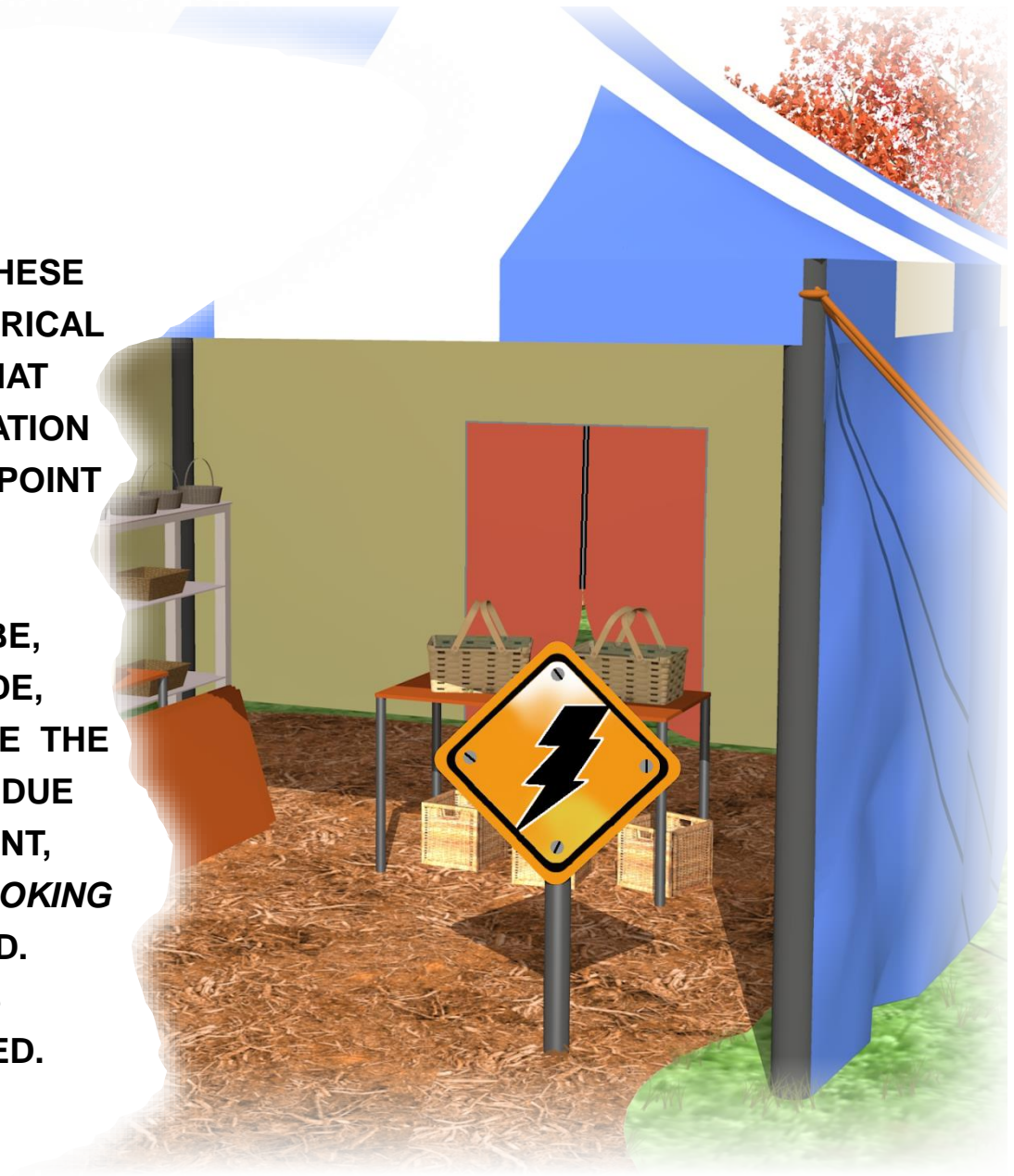
This first step is important because one has to decide if there are any sections of Ch. 31 applicable. Once one determines there is no open or exposed flame and / or cooking then one knows that all of Ch. 31 is silent. In this scenario that is true. Go to step 2.

**THIS TENT DOES NOT HAVE TO MEET ANY OF THE REQUIREMENTS IN CH. 31.**

# ELECTRICAL CODE VIOLATIONS

## Compound Scenario

- IN ORDER TO UNDERSTAND THESE SLIDES PERTAINING TO ELECTRICAL CODE VIOLATIONS, REALIZE THAT A SPECIFIC ELECTRICAL VIOLATION HAS NOT BEEN SHOWN. THE POINT TO REMEMBER IS, IF AN ELECTRICAL CODE VIOLATION EXISTS, WHATEVER IT MIGHT BE, THE INDIANA ELECTRICAL CODE, (IEC), MAY BE USED TO SOLVE THE PROBLEM. IN THIS SCENARIO, DUE TO THIS BEING A “SCOPE” TENT, SEC. 3104.15, *HEATING AND COOKING EQUIPMENT*, MAY NOT BE USED. HOWEVER, THE IEC IS ALWAYS APPLICABLE AND MAY BE USED.



# ELECTRICAL CODE VIOLATIONS

## Compound Scenario



- 1<sup>st</sup>: DEAL WITH THE “SCOPE” TENT - IS THERE OPEN OR EXPOSED FLAME AND / OR COOKING?
- 2<sup>nd</sup>: ADDRESS THE ACTIVITY UNDER THE TENT - MERCHANDISE DISPLAY AND AN ELECTRICAL CODE VIOLATION.
- 3<sup>rd</sup>: DEAL WITH THE ELECTRICAL CODE VIOLATION - THE INDIANA ELECTRICAL CODE MAY BE USED.

For step 2, ask the following questions:  
Are there any rules of the FPBSC which address merchandise display? ( in this case baskets )  
Are there any rules of the FPBSC which address electrical code violations?

**THIS TENT DOES NOT HAVE TO  
MEET ANY OF THE REQUIREMENTS IN CH. 31.**

# ELECTRICAL CODE VIOLATIONS

## Compound Scenario



- 1<sup>st</sup>: DEAL WITH THE “SCOPE” TENT - IS THERE OPEN OR EXPOSED FLAME AND / OR COOKING?
- 2<sup>nd</sup>: ADDRESS THE ACTIVITY UNDER THE TENT - MERCHANDISE DISPLAY AND AN ELECTRICAL CODE VIOLATION.
- 3<sup>rd</sup>: DEAL WITH THE ELECTRICAL CODE VIOLATION - THE INDIANA ELECTRICAL CODE MAY BE USED.

**Step 3: Merchandise display / baskets –**  
there is nothing in any of the rules of the FPBSC addressing baskets.  
**Electrical code violations –**  
Use the Indiana Electrical Code, IEC.

**THIS TENT DOES NOT HAVE TO  
MEET ANY OF THE REQUIREMENTS IN CH. 31.**



# **SUMMARY:** the following code sections govern this scenario

## ■ **Sec. 3101.1 – Scope**

THIS IS THE ONLY CODE  
SECTION THAT APPLIES IN CH. 31.

## ■ **Sec. 3104.15 – Heating and cooking equipment**

→ Not applicable to this scenario.

## ■ **Indiana Electrical Code, IEC**

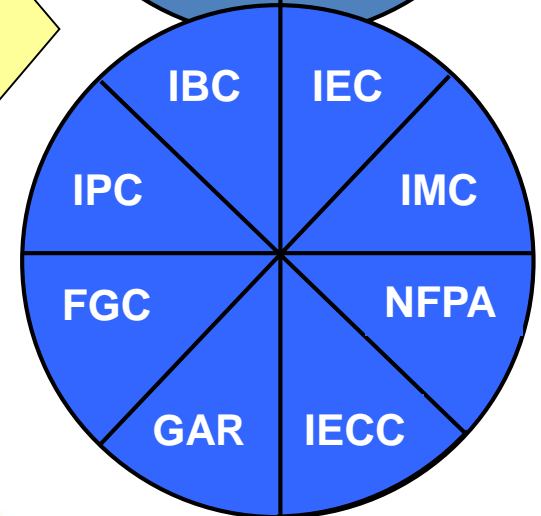
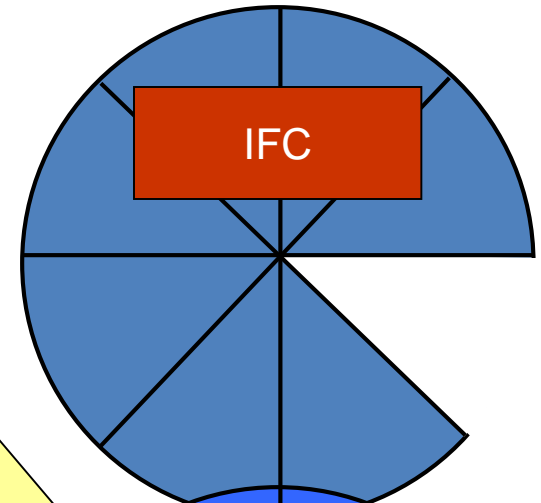
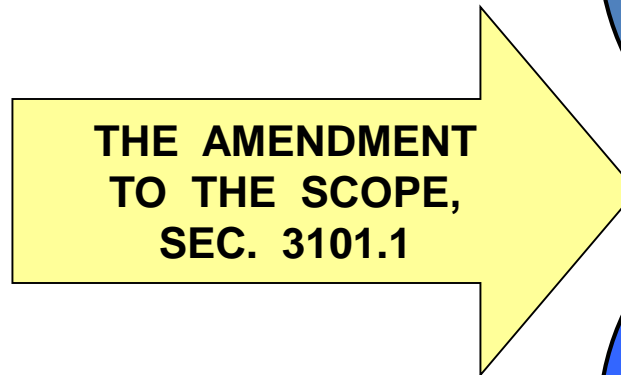
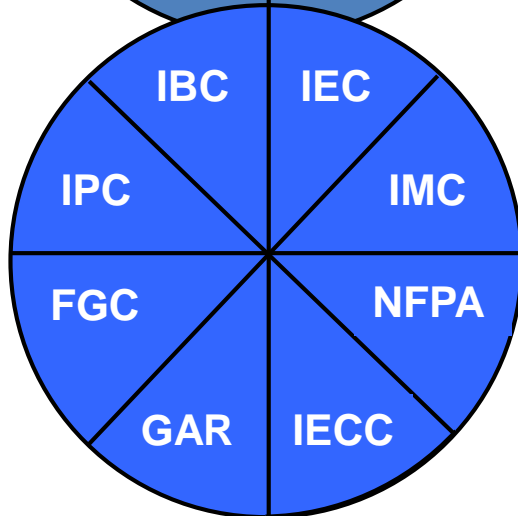
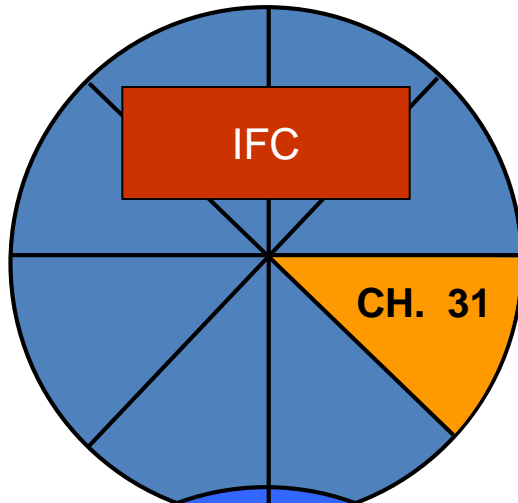
→ Applicable to this scenario.



AN ELECTRICAL CODE VIOLATION  
UNDER A “SCOPE” TENT

# COMPOUND SCENARIOS

## ■ CODES, STANDARDS AND OTHER RULES APPLICABLE TO “SCOPE” TENTS





## **Chapter 31, 2014 Ed. Indiana Fire Code**

# **Tents And Other Membrane Structures**

**Presented by the State Fire Marshal's Office**

**Division of Fire and Building Safety**